



DEPARTMENT OF THE NAVY  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
WASHINGTON, DC 20350-2000

IN REPLY REFER TO

OPNAVINST 3171.2  
OP-392E

25 MAR 1985

OPNAV INSTRUCTION 3171.2

From: Chief of Naval Operations

Subj: PROCEDURES FOR SELECTING, TRAINING, QUALIFYING AND  
CERTIFYING NAVY TUGMASTERS

Ref: (a) NAVPERS 18068D, Section II, Navy Enlisted  
Qualifications

Encl: (1) Subjects to be included in Tugmaster's Handbook

1. Purpose

a. To establish responsibilities for selecting, training, qualifying and certifying Navy tugmasters.

b. To establish minimum training requirements for tugmaster qualification.

c. To establish guidelines for requalifying and certifying personnel previously qualified/certified as tugmasters.

d. To ensure that tugmasters are trained, qualified and certified to handle special ships such as submarines and aircraft carriers where these ships are in the population to be handled.

2. Applicability. This instruction applies to all activities operating Navy harbor tugs.

3. Discussion

a. In the past, Navy tugmasters have been trained and qualified without common guidelines and requirements, having received their initial tugmaster training at an activity operating harbor tugs. At subsequent assignments, it was found that previously qualified tugmasters lacked some of the skills needed in certain evolutions. It was also discovered that they lacked knowledge of the ships in the local ship population, particularly submarines and aircraft carriers.

b. Traditionally, the tugmaster assignment has implied that the individual filling the position possessed superior standards of professional competence, leadership, sound judgment, and personal conduct. It continues to be one of the most responsible and prestigious assignments for which enlisted men of certain ratings can qualify. It demands dedication, poise, and composure while involved in a multi-faceted evolution.

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#### 4. Responsibility

a. The Commanding Officer of each activity operating Navy harbor tugs is responsible for the selection, training, qualification and certification of tugmasters. He will ensure that trainees receive the minimum training required by this instruction. He will personally certify trainees as tugmasters. He is also responsible for determining that commercial and civil service tugmasters handling the activity's ship population possess the appropriate U. S. Coast Guard license.

b. The Senior Harbor Pilot at each activity is responsible for the development of the tugmaster training program. He will supervise the training of tugmaster trainees and recommend qualified trainees for certification. In activities not having a Civil Service Harbor Pilot assigned, this responsibility will be assigned to the senior tugmaster.

#### 5. Qualification Requirements

##### a. General:

(1) Requirements for Selection as Trainee. Personnel selected for tugmaster training will be required to meet the pay grade and rating requirements of reference (a). In addition, they must be free of uncorrectable audio/visual blindness and have normal depth perception.

##### b. Specific:

(1) Training Period. Original training will normally be conducted for a minimum of one year. Activity Commanding Officers may modify this timeframe as appropriate, provided the training requirements specified in paragraph 5b(3) are met. An evaluation of the trainee's progress will be made at three and six month intervals to determine whether further training is warranted. Practical proficiency and in-depth understanding of the training requirements specified in paragraph 5b(3) will be demonstrated during the six month and final evaluations.

##### (2) Certification

(a) Provisional. Tugmasters certified prior to publication of this instruction are provisionally certified until the activity Commanding Officer determines whether additional training is required for final certification. This determination and additional training, if required, will be accomplished within 180 days of the receipt of this instruction. A record of this final certification, including additional training, if required, should be maintained.

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(b) Full

1. A final evaluation will be conducted by the Senior Harbor Pilot upon completion of training. Personnel demonstrating proficiency will be recommended for certification by the activity Commanding Officer.

2. Qualified personnel will be certified by the activity Commanding Officer after passing the final evaluation and on recommendation of the Senior Harbor Pilot.

(c) Recertification

1. Ship population to be handled is same as prior assignments: Prospective tugmasters who have previously qualified as tugmaster may complete tugmaster qualifications as specified by the Senior Harbor Pilot and approved by the activity Commanding Officer. Specific qualification items not considered necessary should be deleted as specified in paragraph 7. The program will be structured to permit requalification within three months.

2. Ship population to be handled is different from prior assignments: Prospective tugmasters who have previously qualified as tugmaster may complete tugmaster qualifications as specified by the Senior Harbor Pilot and approved by the activity Commanding Officer. Specific qualification items not considered necessary should be deleted as specified in paragraph 7a. The program will be structured to permit requalification within six months.

(3) Minimum Requirements. The minimum curriculum will include training, demonstrated practical proficiency, and an in-depth understanding/appreciation for the following situations, evolutions and vessel types:

## (a) Towing (independent):

1. Non-self-propelled craft.
2. 3 line make-up on the tugs quarter and shoulder.
3. 2 line make-up off the tugs shoulder.
4. Pushing (Mississippi).
5. Mooring and getting underway with barge alongside from ships at anchor.

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6. Astern.
7. Multiple tows in items a-e.
8. STASS connect and disconnect.
9. Cold-iron ships assists of local ship population.

(b) Ship assist work:

1. Stern towing.
2. Single headline.
3. Split/twin headlines.
4. Quarterlines.

(c) Discuss and demonstrate knowledge required in working around (but not limited to) the following unique hull configurations, protrusions and compositions:

1. Wooden hulls.
2. Fiberglass hulls or portions.
3. Sonar domes.
4. Amphibious ships.
5. Carriers.
6. Various merchant hull configurations.
7. Sailing vessels.
8. Submarines.
9. Tankers (loaded and light displacement).

(d) Demonstrated knowledge of:

1. Girding.
2. Flooding.
3. Onboard fire.
4. Man overboard.

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5. Steering Casualty..
6. Anchoring.
7. Navy standard tug hand/whistle signals and voice radio procedures.
8. Parted tow line/wire.
9. Assisting vessel aground.
- (e) Safety of personnel and tug:
  1. Weather/sea-states/tides/currents.
  2. Navigation.
  3. Operating limitations.
  4. Damage control and watertight integrity.
  5. International and inland rules of the road.

(4) Tugmaster's Handbook. A tugmaster's handbook will be prepared and distributed to each tugmaster trainee. It will contain all information, requirements, and instructions applicable to the commander's geographical area. Enclosure (1) contains a list of the subjects to be included in the handbook, including a bibliography of current shiphandling publications.

(5) Training sources. These sources include local maritime training instructors, interservice schools and Navy courses. They can be effective in teaching navigation, rules of the road and seamanship.

## 6. Actions

a. The Commanding Officer of an activity with assigned harbor tugs will:

(1) Establish procedures to ensure that personnel are qualified and certified as tugmasters before operating harbor tugs.

(2) Use the minimum guidelines in paragraph 5b(3) to establish a local training and qualification program for tugmasters consistent with ship types and tasking requirements common to the local area.

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(3) Ensure the training program emphasizes the skills needed to handle special ships, such as submarines and aircraft carriers, where these ships are in the population to be handled.

(4) Determine whether provisionally certified tugmasters require further training.

(5) Require appropriate entries in a qualified tugmaster's service record to document that individual's achievements.

(6) Recommend to Commander, Naval Military Personnel Command assignment of NEC 0161 to individuals completing qualification.

(7) Ensure commercial and civil service tugmasters handling the activity's ship population meet appropriate licensing requirements.

b. The Senior Harbor Pilot at each activity will:

(1) Supervise the training and qualification program for tugmaster trainees and recommend trainees to the activity commanding officer for certification.

(2) Specify the requalification/recertification program for previously qualified tugmasters.

(3) Specify the program for provisionally certified tugmasters requiring further training.

(4) Prepare and distribute the tugmaster's handbook to tugmaster trainees.

7. Records. Records shall be maintained showing the progress and status of qualification of each tugmaster trainee. Qualification cards used by each person in qualifying as tugmaster should be retained as part of these records while he is assigned to the activity. The following procedures should be followed in completing qualification cards:

a. When an item on a card is not considered necessary for individual qualification, it should be crossed out and initialed by the officer who is responsible for the qualification.

b. All items, requiring signature, on a qualification card should be signed or deleted. Ditto marks and arrows should not be used.

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c. Prior to final qualification each card should be checked; errors and omissions should be noted and corrected.

d. Prior to transferring a qualified tugmaster, appropriate entries will be made in that person's service record, documenting his qualification achievements. Once transferred, a person's individual qualification records may be destroyed.



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SUBJECTS TO BE INCLUDED IN  
TUGMASTER'S HANDBOOK

Introduction  
Training and Qualification for Tugmaster Trainees  
Tugmaster Responsibilities  
Tugmaster Trainee Training Records  
Characteristics of Assigned Tugs (Ships Characteristic Cards)  
Engineering Operation Sequence System (EOSS)  
Basic U. S. Navy Barge Types  
Basic Tug Operating Instructions  
Basic Piloting Information  
General Information (Activity Name) Area  
Radio Communications  
Signals, Pilot to Tug, Tug to Pilot  
Secondary Mission Assignments  
Fueling/Defueling  
Procedures for Local Service Craft when in Other Ports  
Waterway Traffic Report  
Basic Tug Make-ups while handling Surface Ships and Barges  
Special Situation Examples for Assigned Tugs  
Alternate Barge Pick-up Method For Assigned Tugs  
Mooring Barges to Buoys  
Precautions while working Submarines (if in population to be handled)  
Basic Make-ups while handling Submarines (if in population to be handled)  
Basic Procedures for STASS Recovery (if in population to be handled)  
Emergency Towing of Submarines (if in population to be handled)  
Tug Damage Control  
Damage Control Equipment  
Casualty Control and Trouble Shooting  
Rigging the Weapons Recovery System (required only for tugs in weapons recovery)  
Rigging Transfer Brow  
Bibliography

Enclosure (1)